Northeast Tri County Health District

Environmental Health
On-site Sewage Program
Overview

- Why?
 - Prior to 1994 major concern was disposal
 - 1994 Regulations major concern is treatment to protect public health

- On-Site Sewage Regulation
- 2002 Adopted full set of guidelines



Site Evaluation



■ Test hole



Water in the bottom of a test hole.



■ 1A soil – extremely gravelly coarse sand



Restrictive clay soil

TABLE II SOIL TEXTURAL CLASSIFICATION

Soil Type	Soil Textural Classifications			
1A	Very gravelly ¹ course sands or coarser. All extremely gravelly ² soils.			
1B	Very gravelly medium sand, very gravelly fine sand, very gravelly very fine sand, very gravelly loamy sands.			
2A	Coarse sands (also includes ASTM C-33 sand			
2B	Medium sands.			
3	Fine sands, loamy course sands, loamy medium sands.			
4	Very fine sands, loam fine sands, loamy very fine sands, sandy loams, loams.			
5	Silt loams that are porous and have well developed structure.			
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.			
Unsuitable for treatment or disposal	Sandy clay, clay, silty clay, and strongly cemented or firm soils.			

^{1.} Very Gravelly = > 35% and < 60% gravel and coarse fragments, by volume.

^{2.}Extremely Gravelly = > 60% gravel and coarse fragments, by volume.

TABLE IV
METHODS OF EFFLUENT DISTRIBUTION FOR SOIL TYPES & DEPTHS

	VERTICAL SEPARATION			
SOIL TYPE	< 1 foot	≥ 1 foot to < 2 feet	≥ 2 feet to < 3 feet	\geq 3 feet
1A	Not allowed	Pressure Distribution (see note) 1 & 2	Pressure Distribution (see note) ¹	Pressure Distribution (see note) ¹
2A	Not allowed	Pressure Distribution (see note) 1 & 2	Pressure Distribution	Pressure Distribution
1B – 6	Not allowed	Pressure Distribution (see note) 1 & 2	Pressure Distribution	Gravity Distribution

¹ System meeting Treatment Standard 2 required.

Mound systems installed where the original, undisturbed, unsaturated soil depth is between 12 and 18 inches, require pretreatment by an intermittent sand filter.



Conventional gravity drainfield



Septic tank installation



Gravelless chambers



Squirt test on pressure distribution system



Aerobic Treatment Unit (ATU)



High strength treatment unit